

Applicant: Nick et al.
Application No.: 10/727,839
Examiner: C. Fox

Remarks

Claims 1-19 are presented for the Examiner's review and consideration. Claims 1-9 have been amended and claims 10-19 have been added. Applicants believe the claim amendments, additions, and accompanying remarks herein serve to clarify the present invention and are independent of patentability. No new matter has been added.

Priority Claim

The Examiner acknowledged the claim of foreign priority under 35 USC §119(a)-(d) or (f). However, the Examiner indicated that none of the certified copies on the priority documents have been received.

Applicants submit that the certified copies of the priority documents were previously submitted in the International Application.

Claim Objections

Applicants have amended claims 3 and 5 to address the objection to these claims. Accordingly, Applicants request reconsideration and withdrawal of the claim objections.

35 U.S.C. §112 Rejections

Claim 9 was rejected under the first paragraph of 35 U.S.C. 112. The Examiner asserted that the specification, while being enabling for automatic closing of the hatch, does not reasonably provide enablement for closing the hatch when the loading floor is retracted. For the reasons set forth below, Applicants respectfully submit that this rejection should be withdrawn.

The present invention discloses that toothed segment 11 and rack 12 are provisioned such that they are directly adjacent, that is, shaft 14 first runs over toothed segment 11, so that loading floor 5 is lifted, after which shaft 14 runs over rack 12, so that the loading floor is pushed out in a horizontal translatory motion. ([0040]). This process of movement is reversible, that is, in order to retract loading floor 5, shaft 14 is driven in the opposite direction so that the loading floor is moved back into the loading area in a horizontal direction along rack 12, after which it is

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lowered to its fully retracted position through the motion of shaft 14 along toothed segment 11.
(Id.)

One or multiple operating elements are present, for example, on the instrument panel, in loading area 1 and/or on the vehicle's remote control, for the purpose of operating the loading apparatus, that is, for extending or retracting the loading floor. (§[0047]). Accordingly, in order to retract loading floor 5, a movement command is issued so that drive mechanism 13 is activated so that it exerts the opposite rotation until loading floor 5 is fully retracted. (§[0048]).

It is preferable that the vehicle exhibits an apparatus for automatically opening and closing the rear hatch. (§[0049]). It is also preferable that such apparatuses for automatically opening and closing the rear hatch are also controlled by the control device. (Id.) In this case, if a movement command is issued, the opening and closing of the rear hatch is coordinated appropriately, that is, if a command to extend loading floor 5 is input, the rear hatch is first opened automatically before the loading floor is extended. (Id.) Accordingly, the rear hatch is automatically closed again after loading floor 5 has been retracted. (Id.)

As such, the present invention discloses a mechanism for extending and retracting the loading floor. Additionally, it is noted the mechanism for opening and closing a rear hatch are known in the art and can be coupled with the present invention, such that the control device can control the movement of the hatch. As such, the control device can coordinate the operation of the loading floor and the rear hatch, opening the rear hatch/extending the loading floor and retracting the loading floor/closing the rear hatch.

Accordingly, Applicants submit that the specification reasonable provides enablement for closing the hatch when the loading floor is retracted. In light of the foregoing, Applicants respectfully request reconsideration and withdrawal of the 35 U.S.C. 112, first paragraph rejection.

Claims 1-9 were rejected under the second paragraph of 35 U.S.C. 112. The Examiner asserted that the claims were as indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. In response, Applicants have amended the claims to address this rejection. Applicants have additionally corrected other informalities in the claims.

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In light of the foregoing, Applicants respectfully request reconsideration and withdrawal of the 35 U.S.C. 112, second paragraph rejections.

35 U.S.C. §102 Rejection based on Haid et al

Claims 1-4 and 8 were rejected under 35 U.S.C. §102(a) as being anticipated by U.S. Publication No. 20010036396 to Haid et al. ("Haid"). For the reasons set forth below, Applicants respectfully submit that this rejection should be withdrawn.

Haid discloses an extendable loading floor for a motor vehicle, in particular for a motor vehicle provided with a rear flap. (¶[0002]). The supporting rail 7 contains a spindle rod or spindle 9 which is provided with an external thread and, at an end remote from the loading edge 2, can be driven by a motor 10. (¶[0014]). The motor 10 is, for example, an electric motor. (Id.) Arranged in the interior of the guide rail 17 is a spindle or spindle rod 18 which has an external thread and can be driven in a rotating manner by a motor 19, which is preferably designed as an electric motor. (¶[0015]).

If the loading floor 1 is to be transferred from the retracted position, which is represented in FIG. 1, into the extended position represented in FIG. 3, first of all the motor 19 assigned to the lifting apparatus 11 is actuated. (¶[0019]). After the lifting up of that end of the loading floor 1 which faces the loading edge 2, the motor 10 assigned to the supporting rail 7 is actuated and drives the spindle 9 which is connected thereto, as a result of which that end 6 of the supporting element 3 which is in engagement with the said spindle is adjusted along the spindle 9 in the supporting rail 7. (¶[0021]). With the supporting element 3 connected to the loading floor 1, the loading floor 1 is moved in the extension direction 6 as a result. (Id.)

As such, Haid discloses a loading floor having two motors for extension and retraction of the loading floor. A first motor is used to raise an end portion of the loading floor above the loading edge. The second motor is used to extend the loading floor. Haid fails to disclose a single motor for raising and extending the loading floor.

In contrast, the present invention discloses a drive mechanism 13 is located on the lower side of loading floor 5. (¶[0037]). Drive mechanism 13 preferably contains an electric motor, which is controlled by a control device. (Id.) Drive mechanism 13 drives shaft 14. (¶[0038]).

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In the position of loading floor 5 shown in FIG. 2, shaft 14 engages an outer region of toothed segment 11. (Id.) By activating drive mechanism 13, shaft 14 rotates counterclockwise, so that shaft 14 runs over toothed segment 11. In the process, driving force from shaft 14 is exerted on toothed segment 11, as the result of which parallelogram steering elements 7 and 8 swing around axes 9, or 10 respectively, so that loading floor 5 is raised. (Id.) Toothed segment 11 and rack 12 are provisioned such that they are directly adjacent, that is, shaft 14 first runs over toothed segment 11, so that loading floor 5 is lifted, after which shaft 14 runs over rack 12, so that the loading floor is pushed out in a horizontal translatory motion. (§[0040]).

As such, the present invention discloses a single drive mechanism such as an electric motor. The motor first operates to rotate the shaft so that it runs over the toothed segment to raise the loading floor. The shaft then runs over the rack, which is positioned directly adjacent to the tooth segment, to horizontally extend the loading floor. The single motor acts both to raise and extend the loading floor.

Independent claim 1 now recites, *inter alia*, a loading apparatus for a vehicle. The loading apparatus includes a loading floor provisioned in a loading area of the vehicle. Elements for a vertical height adjustment of the loading floor within the loading area and a horizontal movement of the loading floor, specifically for extending and retracting the loading floor out of and into the loading area, are included. Drive elements are included for driving the elements for the vertical height adjustment of the loading floor. The drive elements also serve to drive the elements for the horizontal movement of the loading floor.

In light of the foregoing, independent claim 1 is respectfully submitted to be patentable over Haid. As claims 2-4 and 8 depend from claim 1 these dependent claims necessarily include all the elements of their base claim. Accordingly, Applicants respectfully submit that the dependent claims are allowable over Haid at least for the same reasons.

35 U.S.C. §103 Rejection based on Haid et al.

Claim 7 was rejected under 35 U.S.C. 103(a) as being unpatentable over Haid et al. as applied to claim 1 above, and further in view of Opardt et al. Claim 9 was rejected under 35 U.S.C. 103(a) as being unpatentable over Haid et al. as applied to claim 1 above, and further in view of

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admitted prior art.

Claims 7 and 9 depend from claim 1. As noted above claim 1 is patentable over Haid. The inclusion of Opardt and the admitted prior art fail to overcome the deficiencies in Haid. Accordingly, Applicants respectfully submit that the dependent claims are allowable over Haid at least for the same reasons.

New Claims

Applicants have added new claims 10-19. Applicants submit that the new claims are supported by the specification and no new matter has been added.

Conclusion

In light of the foregoing remarks, this application is now in condition for allowance and early passage of this case to issue is respectfully requested. If any questions remain regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

No fee is believed to be due. However, please charge any required fee (or credit any overpayments of fees) to the Deposit Account of the undersigned, Account No. 500601 (Docket No. 7390-X03-025).

Respectfully submitted,

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